

Application No.: 10/695721  
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Amendments to the Claims

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Canceled)
6. (Canceled)
7. (Canceled)
8. (Canceled)
9. (Canceled)
10. (Canceled)

11. (Currently Amended) A glass laminate useful for blocking the transmission of IR light, comprising a multiple layer interlayer comprising: (1) two thermoplastic polymer sheets; and (2) a film positioned between the thermoplastic polymer sheets such that the film is in direct contact on each of its surfaces with the sheets, and (3) a glass layer, wherein the film can either reflect or absorb IR light, and wherein the thermoplastic polymer sheets comprise an unplasticized copolymer prepared from ethylene and  $\alpha,\beta$ -unsaturated carboxylic acids having from 3 to 8 carbon atoms wherein the acid groups of the copolymer have been at least partially neutralized to yield an ethylene/ $\alpha,\beta$ -unsaturated copolymer ionomer.

12. (Previously Presented) The glass laminate of claim 11 wherein at least one of the layers of laminate materials used in the IR-blocking laminate is primed using a priming agent prior to lamination.

13. (Previously Presented) The glass laminate of claim 11 wherein the film is primed using a priming agent prior to lamination.

14. (Previously Presented) The glass laminate of claim 13 wherein the priming agent is a silane compound or solutions thereof.

15. (Previously Presented) The glass laminate of claim 13 wherein the priming agent is a silane compound in a solution of a solvent selected from the group consisting of methanol, ethanol, n-propyl alcohol, i-propyl alcohol, water, and mixtures of any of these.

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16. (Previously Presented) The glass laminate of claim 13 wherein the priming agent is an aminosilane compound or solutions thereof.
17. (Currently Amended) The ~~process~~ glass laminate of claim 16 wherein the aminosilane compound is selected from the group consisting of gamma-aminopropyltriethoxysilane and N-(2-aminoethyl)-3-aminopropyltrimethoxysilane, or similar hydrolyzable amino silanes.
18. (Currently Amended) The ~~process~~ glass laminate of claim 16 wherein the aminosilane compound is selected from the group consisting of gamma-aminopropyltriethoxysilane and N-(2-aminoethyl)-3-aminopropyltrimethoxysilane.
19. (Previously Presented) The glass laminate of claim 13 wherein the priming agent is an aminosilane compound in a solution of a solvent selected from the group consisting of methanol, ethanol, n-propyl alcohol, i-propyl alcohol, water, and mixtures of any of these.
20. (Currently Amended) The ~~process~~ glass laminate of claim 19 wherein the aminosilane is selected from the group consisting of gamma-aminopropyltriethoxysilane and N-(2-aminoethyl)-3-aminopropyltrimethoxysilane.
21. (Currently Amended) The glass laminate of claim 11 wherein the 90° peel strength of the laminate as measured by peeling one of the thermoplastic polymer sheets from the film is at least about 2.0 oz/inch.
22. (Currently Amended) The glass laminate of claim 13 wherein the 90° peel strength of the laminate as measured by peeling one of the thermoplastic polymer sheets from the film is at least about 3.5 oz/inch.
23. (Currently Amended) The glass laminate of claim 13 wherein the 90° peel strength as measured by peeling one of the thermoplastic polymer sheets from the film of the laminate is at least about 4.0 oz/inch.
24. (Currently Amended) The glass laminate of claim 16 wherein the 90° peel strength of the laminate as measured by peeling one of the thermoplastic polymer sheets from the film is at least about 4.0 oz/inch.
25. (Previously Presented) The glass laminate of claim 11 consisting essentially of in sequence and wherein each layer is adhered to the adjacent layer or film: a layer of glass, one of the two thermoplastic polymer sheets, the film, the second of the two thermoplastic polymer sheets, and a second layer of glass.
26. (Previously Presented) The glass laminate of claim 13 consisting essentially of in sequence and wherein each layer is adhered to the adjacent layer or

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film: a layer of glass, one of the two thermoplastic polymer sheets, the film, the second of the two thermoplastic polymer sheets, and a second layer of glass.

27. (Previously Presented) The glass laminate of claim 16 consisting essentially of in sequence and wherein each layer is adhered to the adjacent layer or film: a layer of glass, one of the two thermoplastic polymer sheets, the film, the second of the two thermoplastic polymer sheets, and a second layer of glass.

28. (Currently Amended) The glass laminate of claim 11 further comprising in sequence and wherein each layer is adhered to the adjacent layer or film: one of the two thermoplastic polymer sheets, the film, the second of the two thermoplastic polymer sheets, at least one layer of transparent interlayer material, and the glass layer.

29. (Currently Amended) The glass laminate of claim 11 further comprising in sequence and wherein each layer is adhered to the adjacent layer or film: a layer of glass, one of the two thermoplastic polymer sheets, the film, the second of the two thermoplastic polymer sheets, at least one layer of polyvinyl butyral, and the glass layer.

30. (Currently Amended) The glass laminate of claim 11 further comprising in sequence and wherein each layer is adhered to the adjacent layer or film: a layer of glass, one of the two thermoplastic polymer sheets, the film, the second of the two thermoplastic polymer sheets, at least one layer of plasticized polyvinyl butyral, and the glass layer.

31. (Currently Amended) The glass laminate of claim 11 comprising in sequence and wherein each layer is adhered to the adjacent layer or film: ~~a layer of the glass layer~~, one of the two thermoplastic polymer sheets, the film, the second of the two thermoplastic polymer sheets, a plasticized polyvinyl butyral layer, and a second layer of glass.

32. (Previously Presented) The glass laminate of claim 11 wherein the film contains metal flakes or coating.

33. (Currently Amended) A multiple layer interlayer article useful for blocking the transmission of infra red (IR) light comprising: (1) two thermoplastic polymer sheets; and (2) a film positioned between the thermoplastic polymer sheets such that the film is in direct contact on each of its surfaces with the sheets, wherein the film can either reflect or absorb IR light, and wherein the thermoplastic polymer sheets comprise an unplasticized copolymer prepared from ethylene and  $\alpha,\beta$ -unsaturated carboxylic acids having from 3 to 8 carbon atoms wherein the acid groups of the

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copolymer have been at least partially neutralized to yield an ethylene/ $\alpha,\beta$ -unsaturated copolymer ionomer.

34. (Withdrawn-Currently Amended) A process for manufacturing a multiple layer interlayer article glass laminate as claimed in claim 4 33 comprising:

- a. providing the two thermoplastic polymer sheets;
- b. providing the film;
- c. forming a multiple layer interlayer comprising the film adhered to the two thermoplastic polymer sheets; and
- d. forming the multiple layer interlayer article glass laminate.

35. (Withdrawn) A process for manufacturing a glass laminate useful for blocking the transmission of IR light comprising the steps:

- a. providing two thermoplastic polymer sheets comprised of an unplasticized copolymer prepared from ethylene and  $\alpha,\beta$ -unsaturated carboxylic acids having from 3 to 8 carbon atoms wherein the acid groups of the copolymer have been at least partially neutralized to yield an ethylene/unsaturated copolymer ionomer;
- b. providing a film that can either reflect or absorb IR light;
- c. providing two layers of glass;
- d. assembling the two thermoplastic polymer sheets and film to form a multiple layer assembly;
- e. laminating the multiple layer assembly to form a multiple layer interlayer comprising the film adhered to layers formed from the two thermoplastic polymer sheets; and
- f. forming a glass laminate with the two glass layers on the outside and the multiple layer interlayer on the inside, wherein at least one thermoplastic polymer sheet is adhered to at least one layer of the glass.

36. (Withdrawn) The process of claim 35 further comprising priming using a priming agent prior to the lamination at least one of two thermoplastic polymer sheets or the film.

37. (Withdrawn) The process of claim 35 further comprising priming the film using a silane priming agent prior to the assembling.

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38. (Withdrawn) The process of claim 37 wherein the silane priming agent is an aminosilane compound or solutions thereof.

39. (Withdrawn) The process of claim 38 wherein the laminating comprises heating the multiple layer assembly at a temperature of at least 120°C and at a pressure greater than atmospheric pressure.

40. (Withdrawn-Currently Amended) A process for manufacturing a multiple layer interlayer article as claimed in claim 33 comprising sequentially:

- a. providing the two thermoplastic polymer sheets;
- b. providing the film;
- c. priming at least one of the multiple layers of the laminate by application of a primer solution;
- d. assembling the two thermoplastic polymer sheets and the film to form an assembly by positioning the thermoplastic polymer sheets such that the film is in direct contact on each of its surfaces with the sheets,
- e. laminating the assembly at a temperature of at least 120°C and at a pressure greater than atmospheric pressure.

41. (Previously Presented) The glass laminate of claim 11 comprising in sequence and wherein each layer is adhered to the adjacent layer or film: a layer of glass, one of the two thermoplastic polymer sheets, the film, the second of the two thermoplastic polymer sheets, a plasticized polyvinyl butyral layer, and a layer of polycarbonate sheet.

42. (New) The glass laminate of claim 11 wherein the film is a multi-layered IR-reflecting film.

43. (New) The glass laminate of claim 13 wherein the film is a multi-layered IR-reflecting film.